In the claims:

Pursuant to 37 C.F.R. 1.121, please **cancel** claims 139-164, and please **add** claims 165-187 set forth below.

New claims:

165. (**New**) A medical article comprising:

a. an inorganic-based sol-gel matrix that is biocompatible; and,

b. a first reaction center encapsulated in said matrix,

wherein upon placing said article comprising said biocompatible matrix in contact with tissue and/or fluids of a subject, said first reaction center converts a first prodrug into a first biologically active agent.

166. (**New**) The article of claim 165, wherein said first prodrug is endogenous to said subject and is more deleterious to said subject than said first biologically active agent.

167. (**New**) The article of claim 165, wherein said fluid is blood of said subject.

168. (**New**) The medical article of claim 165, wherein said article consists entirely of said biocompatible matrix.

169. (**New**) The medical article of claim 168, wherein said article is implantable.

170. (**New**) The medical article of claim 165, wherein said biocompatible matrix is attached to said article.

171. (**New**) The medical article of claim 170, wherein said biocompatible matrix is attached to said article as a thin film.

172. (**New**) The medical article of claim 170, wherein said biocompatible matrix is attached to said article in a capsule.

173. (**New**) The medical article of claim 165, wherein said biocompatible matrix is incorporated within said article.

174. (**New**) The medical article of claim 165, wherein said article is a tissue assist device, wherein said first reaction center provides a biological function characteristic of tissue of said subject.

175. (**New**) The medical article of claim 174, wherein said contact occurs extracorporeal to said subject.

176. (**New**) The medical article of claim 175, wherein said tissue of said subject is deficient in converting said first prodrug into said first biologically active agent.

177. (**New**) The article of claim 165, wherein said article is a stent.

178. (**New**) The article of claim 166, wherein said stent is coated with said biocompatible matrix

179. (**New**) A method for producing a medical article of claim 165, comprising:

a. encapsulating a first cell-free reaction center in a biocompatible matrix; and
b. shaping said matrix into a desired morphology;

wherein said biocompatible matrix comprises an inorganic-based sol-gel matrix and wherein said first reaction center converts a first prodrug into a first biologically active agent.

180. (**New**) The method of claim 179, wherein said matrix is cast into a morphology selected from one of the following: cylindrical, rectangular, disk-shaped, patch-shaped, ovoid, stellate, or spherical.

181. (**New**) The method of claim 177, wherein said matrix is cast or sprayed as a thin film onto said medical article.

182. (**New**) The method of claim 181, wherein said article is a stent.

183. (**New**) The method of claim 177, wherein said biocompatible matrix comprises a silica-based sol-gel matrix.

184. (**New**) The method of claim 177, wherein said biocompatible matrix is prepared from at least one type of oxysilane.

185. (**New**) The method of claim 184, wherein said biocompatible matrix is prepared from more than one type of oxysilane.

186. (**New**) The method of claim 184, wherein said biocompatible matrix is prepared from at least one type of inorganic oxide and at least one type of oxysilane.

187. (**New**) A method for producing a medical article of claim 165, comprising:

a. encapsulating a first cell-free reaction center in a biocompatible matrix;
b. crushing said biocompatible matrix; and
c. encapsulating said crushed biocompatible matrix;

wherein said biocompatible matrix comprises an inorganic-based sol-gel matrix and wherein said first reaction center converts a first prodrug into a first biologically active agent.